Understanding why GPs see pharmaceutical representatives: a qualitative interview study

Helen Prosser and Tom Walley

SUMMARY

Backgound: Doctors are aware of the commercial bias in pharmaceutical representative information; nevertheless, such information is known to change doctors' prescribing, and augment irrational prescribing and prescribing costs.

Aim: To explore GPs, reasons for receiving visits from pharmaceutical representatives.

Design of study: Qualitative study with semi-structured interviews.

Setting: One hundred and seven general practitioners (GPs) in practices from two health authorities in the North West of England.

Results: The main outcome measures of the study were: reasons for receiving/not receiving representative visits; advantages/ disadvantages in receiving visits; and quality of representative-supplied information. Most GPs routinely see pharmaceutical representatives, because they bring new drug information speedily; they are convenient and accessible; and can be consulted with a saving of time and effort. Many GPs asserted they had the skills to critically appraise the evidence. Furthermore, the credibility and social characteristics of the representative were instrumental in shaping GPs' perceptions of representatives as legitimate information providers. GPs also received visits from representatives for reasons other than information acquisition. These reasons are congruent with personal selling techniques used in marketing communications.

Conclusions: The study draws attention to the social and cultural contexts of GP-representative encounters and the way in which the acquisition of pharmacological information within the mercantile context of representative visits is legitimated. This highlights the need for doctors to critically appraise information supplied by representatives in relation to other information sources

Keywords: pharmaceutical representatives; information; prescribing; evidence; quality; bias.

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Introduction

*HE pharmaceutical industry spends approximately £10 000 per general practitioner (GP) on promoting its products.1 The company representative is the most expensive part — about 50% of the total. An effective medicine has little value if doctors are unaware of it, and the pharmaceutical industry has a legitimate right to inform doctors about the characteristics of its products. At one level the question as to why doctors see representatives scarcely needs asking; they are a significant source of information.2 However, the professional role and status of representatives is blurred, since they might simultaneously be regarded as both educators and sales advocates for the drugs licensed by their respective pharmaceutical companies. The inherent tension in this dual status is underlined by research calling attention to the poor and misleading nature of much of the information provided.3-5 Doctors are aware of the commercial bias in representative information and often deny that it affects their prescribing. 6 Nevertheless, the information can change doctors' prescribing,7 and augment irrational prescribing and prescribing costs.8 In a recent study conducted by the authors, the representative was the biggest single influence on new drug initiation in general practice and in over a quarter of new drug prescribing incidents studied, information from the representative was the only source used.9

Doctors have differing attitudes towards representatives^{10,11} and although most see representatives it is not clear why. A recent qualitative study, using a dramaturgical model to analyse GP–representative interaction, has provided valuable insight into the stylised format of encounters and into the social and psychological contexts that mediate communication.¹² The present paper focuses principally on GPs' accounts of their reasons for receiving representative visits, to further understand the nature of the relationship between doctors and representatives.

Method

GP practices from two health authority areas were selected using purposeful sampling, so as to cover the range of sex of doctor, size and location of practices, and high to low prescribing cost practices. GPs were invited to participate by letter and followed-up with a telephone call one to two weeks later. The analysis presented here was derived from a wider study on factors influencing new drug prescribing, and the sampling and method are described in more detail elsewhere. Since this study was undertaken prior to the introduction of the Research Governance Framework for Health and Social care, ethical approval was not needed.

One hundred and seven GPs (31 of whom were female)

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HOW THIS FITS IN

What do we know?

Pharmaceutical representatives are a significant influence on prescribing. The information they supply may be inaccurate and biased. Representatives encourage irrational prescribing and increase prescribing costs.

What does this paper add?

This study provides insight into the reasons why GPs receive personal visits from pharmaceutical representatives. Reasons GPs give for seeing representatives are accounted for in 'neutral' and 'legitimate' terms, GPs largely believe in their immunity to commercial marketing activities. However, representatives exert substantial impact on prescribing and GPs are susceptible to the personal selling techniques, such as interactive communication, social and personal interaction, and gift-giving.

from 54 practices were interviewed; a participation rate of 73% of GPs and 77% of practices contacted. Eleven GPs practised single-handedly and eight were from dispensing practices. One researcher (HP) interviewed the GPs face to face between August 1999 and February 2000. Interviews were audiotape-recorded and transcribed. Topics raised with GPs included why they did or did not see representatives, frequency of visits, advantages/disadvantages of representative visits, perceptions of information quality, and whether an information source would be lost if they no longer saw representatives.

Constant comparative analysis¹³ was used to develop categories, identify patterns, and generate explanation from the data. This involved moving back and forth between analysis and explanation, comparing one responder's views and behaviour with another's and testing emerging explanation with the data. Transcripts were analysed by a sociologist (HP) and a random subset of transcripts by a clinical pharmacologist (TW). Themes, categories, and concepts were compared and subsequently agreed upon. Towards the end of interviewing no new themes emerged, indicating that a comprehensive spectrum of factors had been identified.

Results

Although most GPs routinely received visits from representatives they were reactive consumers, the representative typically initiating the visit. However, most GPs controlled the frequency of visits through appointments, with selection of representatives often managed on a first-come-first-served basis until available appointment slots are filled: 'You don't know who's coming in until they walk in the door' (GP30). A small minority of GPs were also willing to receive unsolicited visits, while another small number had no appointment system and only saw representatives who called speculatively. Only 15 GPs never received visits, while two requested visits only when they wanted specific information. The means to exercise control over access exemplifies disparity in the professional structure of the representative/GP relationship and signifies GPs' relative position of professional authority.

- Convenience and availability of drug information
- Legitimacy of representatives as providers of drug information
- Patronage
- · Gift-giving and sponsorship
- · Social and intellectual exchange
- Organisational and cultural norms

Box 1. Major themes from GP interviews.

GPs' reasons for seeing representatives were diverse and six broad themes emerged (Box 1).

Convenient provision of available drug information

Consistent with representatives' role as educators, many GPs regarded representatives as an expedient means of acquiring and processing drug information. Keeping up to date with new products and future developments and being reminded of existing products was a common feature in GPs' accounts, while specific information; for example, indications and costs, was also useful.

'Although you try and keep up with journals and such like that, some things go by, you do miss things. So I feel like I'm keeping up to date a little bit. If I didn't see reps I feel that I would be slightly disadvantaged in terms of my awareness of medications coming through.' (GP61.)

'If there's a new drug coming out they're very keen to get round here, fairly early on if not before the drug's launched, just to say, "Look, there's a new development." And the quality of the information on the whole is pretty good.' (GP71.)

'If it wasn't for the reps, all we'd have about Vioxx is two or three letters from the rheumatologist saying, "By the way, this new anti-inflammatory is OK for people with upset stomachs." That would be all we'd know, or a bit from MIMS, because there isn't any other mechanism, so if it wasn't for the drug reps we'd be left high and dry.' (GP23.)

In addition to information content, the format of its communication was also important. Most GPs saw representatives on a one-to-one basis, and appreciated personal interaction as representatives responded quickly to information needs and queries.

'I think the answer is it's user friendly, it's very user friendly and its easy listening, you know, with your coffee listening to what they've got to say.' (GP77.)

'It's the one-to-one thing. They're definitely useful. They're interactive and you can ask them questions.' (GP92.)

This had a direct influence on subsequent new drug prescribing — several GPs commented that they retained information better when it was communicated verbally. 'I can remember the information better after having talked to them.' (GP107.)

'Seeing a representative face to face tends to make a more lasting impression than reading.' (GP84)

GPs also stated they found representatives useful for obtaining research papers and journal offprints. However, GPs' use of representatives seemed to be partly owing to the tardiness of independent scientific sources to convey new pharmacological information, and partly a response to pressures of workload and insufficient time in which to assimilate evidence. Thus, representatives were valued as convenient and timely information 'short-cuts', simplifying the acquisition and evaluation of new product information. References to reducing workload also featured in some GPs' accounts of practical help from representatives in changing patients from one medication to another.

'I'm sure you could manage if you didn't see another drug rep and I'm sure you could get the information if you wanted to, it's just that it's not that accessible, and it's also whether you would have the time to actually sit and read it.' (GP94.)

There was often a discrepancy between GPs' use of representatives as information providers and their perceptions of the quality of the information. GPs considered information quality to be 'very variable' (GP7) and 'depending on which reps you see' (GP23). Unsurprisingly, the more frequently visited GPs were more likely to consider the information of high quality. Only a very small minority of GPs expressed *only* positive attitudes towards the quality of information, but most GPs expressed both negative and positive attitudes over different aspects. On the one hand, GPs considered much of the product information as factual, and therefore useful. On the other, they also believed it to be exaggerated, biased, and selective in promoting one company's products. Particularly, there was disdain for industry-conducted research.

'They won't say much about side effects, they play down the side effects, perhaps. Again it's useful in the sense that they would have a good knowledge of the properties of their own drug.' (GP9.)

'I find them useful, but I must admit I tend to take their information with a pinch of salt.' (GP7.)

'I think some of their figures are a bit dubious.' (GP104.)

Despite expressed scepticism over the commercial source of the information, GPs' use of representatives may be explained by their belief that they could resist pressure by selecting the relevant and valid information from what was presented: 'separating the wheat from the chaff' (GP47).

'Most of the information is company-biased, so you've got to develop a healthy scepticism and a way of reading reports that can skim through all the bias.' (GP76.)

Table 1. Characteristics of participating GPs.

Years since qualified Under 10 years 6 11–20 years 55 Over 20 years 46 Number of partners in practice Single-handed 11 2–3 partners 51 4–5 partners 45	Characteristic	Number
11–20 years 55 Over 20 years 46 Number of partners in practice Single-handed 11 2–3 partners 51	Years since qualified	
Over 20 years 46 Number of partners in practice Single-handed 11 2–3 partners 51	Under 10 years	6
Number of partners in practice Single-handed 11 2–3 partners 51	11–20 years	55
Single-handed 11 2–3 partners 51	Over 20 years	46
Single-handed 11 2–3 partners 51	Number of partners in practice	
·		11
4–5 partners 45	2–3 partners	51
1 o partitoro	4–5 partners	45
Contract	Contract	
Part-time 22	Part-time	22
Full-time 85	Full-time	85
Location	Location	
Wirral 44		44
South Cheshire 63	South Cheshire	63
Frequency of pharmaceutical representative contact	Frequency of pharmaceutical representative contact	
Five or more times a week 4		4
More than three times a week 11	More than three times a week	11
2–3 times a week 23	2–3 times a week	23
Once a week 38	Once a week	38
Once a fortnight 6	Once a fortnight	6
Once a month 6	Once a month	6
Less than once a month 4	Less than once a month	4
Never 15	Never	15

'I see reps as a useful information source. I mean, I'm hopefully streetwise enough to be quite selective.' (GP65.)

'They inevitably will present their own product in the best light. It's to some extent taking apart what they say.' (GP23.)

Perceived legitimacy of representatives as providers of information

In order for representatives to enhance professional authority in their relationships with GPs, they must assert their status as information providers. Legitimacy here refers to GPs' regard for a representative's professional status as information provider in which a greater emphasis is placed on the communication of knowledge rather than on betraying commercial interests. 'Legitimacy' was influenced by the perceived quality of the encounter and enhanced by a representative's apparent scientific knowledge and interpersonal communication skills in conveying such knowledge. Representatives who readily provided information on adverse effects and expressed conviction and enthusiasm for a product were regarded as having integrity. Concise, reasoned arguments without perceived exaggeration appealed most. Perceived expertise and trustworthiness built credibility and influenced some GPs to commit to longterm relationships with individuals considered 'bona fide'. In essence, representatives' credibility served as a major source of their legitimacy as information providers.

'Either that they know a lot about the product and the conditions that they're involved with and it's obvious from talking with them that they do know a lot about the physiology or pathology of what they're talking about

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and the way the drug ... ' (GP6.)

'Seretide, I mean, one's happy to prescribe that ... I'm sure a lot of the companies are reputable but with [pharmaceutical representatives] we have had such a lot to do with them.' (GP27.)

'I think if you see a rep who you know well ... it's the same rep who you've seen for several years, they don't try and pull the wool over your eyes. They know that if they tell you lies you'll be seeing them again in six months and you'll find them out.' (GP102.)

Conversely, conduct accentuating the commercial basis of the encounter, such as aggressive sales techniques (for example, asking GPs to justify their current prescribing) and emotional appeals (e.g. direct requests to prescribe a drug as a favour to the representative) diminished legitimacy. Some GPs complained about the 'pushy' approach of some representatives, particularly 'contract' representatives (those hired in to support a short-term promotional campaign), who were criticised for aiming for quick sales rather than establishing relationships. Such approaches could discourage prescribing a representative's product or seeing a particular representative again.

'What we don't like is a drug rep coming in and questioning us, because I don't think that's their role. Or asking us what we do prescribe, and then why. We don't like that. Some of them can be quite pushy.' (GP63.)

'The rep has talked absolute rubbish to us about how to use this drug. He's put me off using it to a point where I've moved on to Accolate just because of these reps talking absolute rubbish.' (GP36.)

There was by no means general agreement that representatives were useful. Some doctors found representative information very poor and considered they would not lose an important information source should they no longer receive visits. This raises the question of why these GPs continued to see representatives. Two possibilities might be suggested. Firstly, representatives were used as a strategy to keep GPs abreast with new products and indications, but the ultimate decision about whether to prescribe was based on additional evidence from other sources. This is supported to a certain extent by our study, which found that, in most new drug initiations, the GP used additional evidence or opinion before prescribing. A second suggestion is that GPs see drug representatives for reasons other than product information.

Social and intellectual exchange

For a minority of GPs, receiving visits — especially from familiar representatives — was driven by a desire for social interaction and 'time-out' from the busy routine of seeing patients.

'Rep activity is just part of the social structure of the doctor's day. It's a break from patients, to talk to someone

different.' (GP71.)

Encounters were a social exchange in which professional divisions were broken down and friendships established, which sometimes extended beyond the work environment. Two GPs who had stopped seeing representatives made exceptions for those who were friends.

'Some reps I've known for donkey's years and they know all about my life and I know all about their life and you have a chat about things which are totally unrelated to why they came, but it does make life more interesting and you're probably more likely to actually retain what they came in to tell you if you've had a pleasant time talking to them about your kids or something.' (GP98.)

Despite the social basis of visits, the representative was again used to 'legitimately' inform pharmaceutical knowledge, several GPs admitting that familiar relationships influenced them to prescribe a particular product. This was the effect of trust earned from continued relationships. Additionally, a few GPs cited an intellectual discussion of the merits of different drugs as a reason for seeing representatives.

'It's a good discipline to sit down and to look through whether something new is better and whether it is justifiable. They have to argue their corner and we argue it back.' (GP29.)

Patronage, gift-giving, and the trading of knowledge

Patronage was a feature throughout many of the interviews and may appear symbiotically advantageous to both representative and GP. Some GPs saw representatives as a matter of courtesy or compassion.

'I think they have a very difficult job. There will be an element of empathy for somebody who comes and says can I talk to you about something. Out of politeness, really.' (GP28)

'I see it as their job, poor things, so the least I can do is to give them five minutes as a matter of courtesy.' (GP12)

GPs secured sponsorship for medical education from representatives, and considered that educational meetings would decline without industry funding. Although GPs in this role considered themselves disengaged from promotional activities, and since information acquisition is not their prime motivation for seeing representatives, either reason for GP contact would be commercially advantageous from the representatives' perspective, since it facilitates information exchange.

A minority of GPs reported that visits were conceded in exchange for gifts for the surgery or hospitality or expenses-paid trips to industry-sponsored conferences.

'Because you can tap them up for various things basically, at the end of the day. Equipment and stuff, yeah,

that's it basically, but if I never saw a drug rep ever again I'd be quite happy.' (GP62.)

'We were building a new surgery and, you know, we needed some sponsorship.' (GP75.)

'I don't mind a nice hotel for a weekend. You don't get many perks unfortunately as a GP, and I don't see a problem in that.' (GP71.)

'This is a confession, really, it's usually when I have responded to some invitation for them to bring a gift of some sort and I know that having done so, you know, I know that if they're bringing me a fire extinguisher or something, I know I have no obligation to see them but I, generally speaking, do, so that is the way they get access to me. I suppose it's bribery.' (GP40.)

This embodies the commercial context of the encounter in that such offerings are traded as remuneration for GP time and the transfer of pharmaceutical information. Although GPs recognised the commercial transparency of these exchanges, the notion of reciprocal obligation was implicit in GP accounts.

'Accolate — that's very much driven by our local rep who comes in here and has helped us out with various things. I mean, it's the Zeneca rep ... and we've had a long association with them, they assist the LMC, that kind of thing, sponsor meetings and that sort of thing. We see the rep and he's sponsored our practice leaflet and that kind of thing, so we see him quite a lot, which doesn't mean we always prescribe their products but I think actually they are rather good, quite a lot of them. This is a new product but the reason I prescribe Accolate rather than Singulair is because of the rep coming.' (GP27.)

'They entertain you, take you out to Christmas dinner and that sort of thing. You try to return their hospitality, after all they are the people producing the drugs.' (GP12.)

Organisational and cultural norms

Some encounters with representatives arose less from active personal decision making on the part of the GP, and more from historical or wider organisational and social influences. Again, a sense of doctors underrating their participation in encounters was a common feature. Some GPs viewed involvement with representatives as a traditional practice, part and parcel of being a GP. Others reported 'inheriting' representatives visiting from previous colleagues, the practice then becoming embedded into their routine.

'I think probably because we always did. With my old senior partners it was the done thing.' (GP74.)

'I think it's a matter of tradition. I think it's the culture.' (GP45.)

Other GPs were encouraged to receive visits by practice colleagues or felt obliged to 'fit in' with practice norms.

However, not all were happy with this: 'If it's up to me I wouldn't see them,' indicating behaviour inconsistent with personal attitudes. Such GPs tried to avoid one-to-one encounters, and saw representatives only in practice meetings.

'Resisting' representatives

To counter marketing pressure while avoiding confrontation, some GPs had developed strategies of either misleading the representative about future prescribing plans or simply listening passively. Only 15 GPs did not receive regular visits from representatives. The reasons cited included the same criticisms expressed by GPs who did receive visits, such as time pressures; but, in the main, objections related to commercially-biased information, representatives' confrontational and argumentative approach, and a lack of legitimacy as information providers and thus subsequent undue influence on prescribing.

'I have been very influenced in the past by my prescribing so I don't see thenm anymore now. I was getting no advantage from it at all, it was skewing my prescribing and I was losing a lot of time, so I stopped seeing them.' (GP8.)

'A basic time efficiency, they're very time consuming and they're often very pushy, and they'll tell you anything to make you prescribe the drug.' (GP46.)

'This feeling that you're getting something for nothing, or you're being offered bribes ... It's not that they're marketing their products because they're good things, they're marketing them because they want to sell them. I think that their marketing strategy means that the information they give you is commercially tainted.' (GP18.)

For GPs in one practice, refusing visits was a shared policy — but one GP felt that he had lost a useful information source, though he followed the practice norm. Two other GPs from separate practices also felt they had lost a degree of information.

GPs were not directly asked whether representatives had influenced their prescribing, as social desirability bias might undermine candid responses. GPs were clearly aware of the influence that representatives could exert on prescribing, but largely considered *themselves* immune from pressure.

'But if they came in and made some wonderful claims about X, Y and Z, I wouldn't necessarily just start using it because of what the rep had said. They'd introduce, but wouldn't necessarily persuade, you know, because, you know, I'm quite a cynic really.' (GP48.)

'I think drug reps are a good thing. The information is useful and they provide a good lunch. Just because I have a pen with the name of a drug on it, doesn't mean I'm going to prescribe it.' (GP93.)

'I feel slightly guilty seeing reps but I don't feel I get persuaded to prescribe things. I do see it as a source of

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information that I might not get otherwise ... I've certainly got no fears that anybody is going to bribe me because the code of the APBI is such that no-one is going to buy me a Porsche for prescribing their product.' (GP6.)

A minority of GPs, however, did acknowledge the direct effect of representatives on their prescribing and our other research clearly demonstrates the influence of representatives on the prescribing of new drugs,⁹ although such prescribing was typically defended as appropriate.

'Reps are incredibly influential, whoever walks through the door, their products tend to stick in the back of your mind ... It's subliminal you know, its amazing how important they are, and then you say "Oh I'll give that a go".' (GP4)

'Rep contact might actually push you a little bit further down the road to try it because of the personal contact.' (GP71.)

'Vioxx, I did prescribe based on what I was being told by the rep. I mean, the information that was presented seemed quite reasonable information, but it was an area where I did perceive that I had a particular need of a new alternative.' (GP65)

Discussion

Although most GPs have regular and frequent interaction with pharmaceutical representatives, attitudes and reasons for seeing them varied widely. That GPs hold contradictory views of the information quality reflects the tension between representatives' dual role of information provider and salesperson. Representatives' success at securing visits to GPs depends as much on a complex interaction between the relative professional structural positions of the representative and the GP, and the representative's skill and personal style, than it does on simply the provision of pharmaceutical information. Disparity in professional status is reconciled to some extent through representatives' enhancement of their legitimacy as information providers. GPs view representatives as convenient information sources, perceiving representatives as more up to date and having access to technical knowledge and clinical research. To deal with the issue of information legitimacy, GPs take information perceived as biased 'with a pinch of salt', while selecting the valid content. The importance of the social context in according legitimacy to representatives as information providers is highlighted by GPs' recourse to those perceived as knowledgeable and credible.

Although commercial drug promotion is not favoured by GPs, ironically it is a means through which representatives attain power and influence in their encounters with GPs. In keeping with other literature describing the use of influence techniques on prescribing, ¹⁴ our study suggests that a key explanation for the influence of representatives on prescribing is the method of marketing communications employed. GPs tended to formulate their reasons for seeing representatives in neutral terms, seemingly disengaging themselves

from the promotional context and believing in their own immunity to marketing pressure. However, textbook descriptions of marketing communications¹⁵ stress the importance of interactive communication, establishing credibility, social and personal interaction and gift-giving — many of the reasons that GPs give for seeing representatives, and all of which can generate a sense of reciprocal obligation on the part of the recipient.

Information provided by representatives is often biased towards the promoted product.^{3,4} This places great onus on doctors to evaluate whether the information is both sufficient and accurate enough to support safe prescribing. However, doctors often fail to recognise inaccurate information from representatives,4 and in this and our other studies, GPs tended to be passive recipients of information, rather than actively seeking it or critically appraising it. Although most GPs regarded commercial information as biased, many were prepared to base prescribing decisions solely on information from this source, rather than independent sources.9 This study emphasises the need for doctors to reassess their relationships with pharmaceutical representatives. More training in critical appraisal skills or specific training on how to obtain useful information from representatives might be useful for many GPs.¹⁷ In addition, information should be evaluated from a breadth of scientific sources, and the active support of Primary Care Trust prescribing advisers may be an important strategy in facilitating acquisition and appraisal of new drug information.

There are some limitations to this study. Reliance on GPs' self-reports may mean that social desirability exerted an effect on the responses given. As such, there may be other reasons for GPs receiving visits from representatives that were not mentioned. Furthermore, in trying to present their motives in a good light, less socially acceptable aspects of representative encounters, such as gift-giving, may be under-reported. Although findings suggest that GPs were highly aware that representatives could influence prescribing, in the main they did not attribute negative influence to their own prescribing. While the given reasons for seeing representatives may represent post hoc rationalisation in the face of questioning, on the other hand GPs may genuinely have a far less realistic understanding of how their prescribing of new drugs is influenced by contact with pharmaceutical representatives. The data suggest that uptake of representative information is not straightforward but more complex, involving the means by which representatives shape GPs' conceptualisation of them as legitimate and credible information sources, rather than merely product promoters. The study would have benefited from complementary interviews with representatives themselves to provide a greater understanding of the doctor-representative interaction. Additional research with both GPs and representatives may be able to characterise more precisely the methods influencing primary care prescribing.

References

- Prescribing new drugs in general practice. MeReC Bulletin 1998; 9(6): 21-24.
- McGettigan P, Golden J, Fryer J, et al. Prescribers prefer people: The sources of information used by doctors for prescribing suggest that the medium is more important than the message. Br J

- Clin Pharmacol 2000; 51: 184-189.
- Lexchin J. Doctors and detailers: therapeutic education or pharmaceutical promotion? Int J Health Serv 1989; 19(4): 663-669.
- Zeigler M, Lew P, Singer B. The accuracy of drug information from pharmaceutical sales representatives. JAMA 1995; 273: 1296-
- Lexchin J. What information do physicians receive from pharma-
- ceutical representatives? Can Fam Physician 1997; 43: 941-945. Hodges B. Interactions with the pharmaceutical industry: experiences and attitudes of psychiatry residents, interns and clerks. CMAJ 1995; **153:** 553-559.
- Peay MY, Peay ER. The role of commercial sources in the adoption of a new drug. Soc Sci Med 1988; 26: 1183-1189.
- Wazana A. Physicians and the pharmaceutical industry: is a gift ever just a gift? *JAMA* 2000; **283**: 391-393.
- Prosser H, Almond S, Walley T. Influences on GPs' decision to prescribe new drugs — the importance of who says what. Fam Pract 2003; **20:** 61-68.
- Griffith D. Reasons for not seeing drug representatives. BMJ 1999; **319:** 69-70.
- Reasons for not seeing drug representatives. [Electronic responses.] *eBMJ* 1999; 319. URL: www.bmj.com/cgi/content/full/319/7202/69
- Somerset M, Weiss M, Fahey T. Dramaturgical study of meetings between general practitioners and representatives of pharmaceutical companies. *BMJ* 2001; **323**: 1481-1484.
- Glaser B, Strauss A. The Discovery of Grounded Theory. Chicago: Aldine, 1967.
- Roughead EE, Harvey KJ, Gilbert AL. Commercial detailing techniques used by pharmaceutical representatives to influence their prescribing. Aust NZ J Med 1998; 28: 306-310.
- Fill C. Marketing communications: contexts, contents and strate-gies. London: Prentice Hall, 1999.
 Slawson DC, Shaughnessey AF. Teaching information mastery: creating informed consumers of medical information. *J Am Board* Fam Pract 1999; 12: 444-449.
- 17. Anastasio GD, Little JM. Pharmaceutical marketing: implications for medical residency training. Pharmacotherapy 1996; 16: 103-107

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